

Title (en)

LED LIGHT MODULE AND LED CHIP

Title (de)

LED-LICHTMODUL UND LED-CHIP

Title (fr)

MODULE DE LUMIÈRE À DIODES ÉLECTROLUMINESCENTES ET PUCE DE DIODE ÉLECTROLUMINESCENTE

Publication

EP 2660509 A4 20170531 (EN)

Application

EP 11852869 A 20110301

Priority

- CN 201010623452 A 20101227
- CN 2011071417 W 20110301

Abstract (en)

[origin: US2013258669A1] An LED light module and an LED chip are provided. LED wafers (1) are provided on one side of a heat spreading plate (3) made of copper, aluminum or copper-aluminum composite material with a thickness of more than 0.4 mm and with an area of 5 times of the sum area of the LED wafers larger to reduce the heat-flux density. A high-voltage insulation plate (2) made of a ceramic wafer with a thickness of more than 0.15 mm is provided on the other side of the heat spreading plate (3). The heat spreading plate (3) is separated and insulated by an outer layer insulator (4) with the high-voltage insulation plate (2). This kind design can effectively reduce the internal conduction thermal resistance and raise the insulation strength, and the manufacturing cost can be reduced effectively also.

IPC 8 full level

F21V 29/00 (2015.01)

CPC (source: EP US)

F21K 9/00 (2013.01 - EP US); **F21V 25/00** (2013.01 - EP US); **F21V 29/70** (2015.01 - EP US); **F21V 29/89** (2015.01 - EP US);
F21Y 2115/10 (2016.07 - EP US)

Citation (search report)

- No further relevant documents disclosed
- See references of WO 2012088790A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

US 2013258669 A1 20131003; US 9506642 B2 20161129; CN 102109116 A 20110629; CN 102109116 B 20160622; EP 2660509 A1 20131106;
EP 2660509 A4 20170531; TW 201226797 A 20120701; TW I449863 B 20140821; WO 2012088790 A1 20120705

DOCDB simple family (application)

US 201113992207 A 20110301; CN 201010623452 A 20101227; CN 2011071417 W 20110301; EP 11852869 A 20110301;
TW 100147867 A 20111222